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|----------------------------------------------------------------------------------------------------|-------------|----------------------|-----------------------------|------------------|
| APPLICATION NO.                                                                                    | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.         | CONFIRMATION NO. |
| 10/812,873                                                                                         | 03/31/2004  | Chung-Hui Chen       | 0698-0160PUS2               | 4579             |
| 2292 7590 03/13/2007<br>BIRCH STEWART KOLASCH & BIRCH<br>PO BOX 747<br>FALLS CHURCH, VA 22040-0747 |             |                      | EXAMINER<br>WONG, WILLIAM   |                  |
|                                                                                                    |             |                      | ART UNIT<br>2178            | PAPER NUMBER     |
| SHORTENED STATUTORY PERIOD OF RESPONSE                                                             |             |                      | NOTIFICATION DATE           |                  |
| 3 MONTHS                                                                                           |             |                      | 03/13/2007                  |                  |
|                                                                                                    |             |                      | DELIVERY MODE<br>ELECTRONIC |                  |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 03/13/2007.

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mailroom@bskb.com

|                              |                                      |                                        |  |
|------------------------------|--------------------------------------|----------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/812,873 | <b>Applicant(s)</b><br>CHEN, CHUNG-HUI |  |
|                              | <b>Examiner</b><br>William Wong      | <b>Art Unit</b><br>2178                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 31 March 2004 and 01 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |                                                                                                            |                                                                                         |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

### **DETAILED ACTION**

This action is in response to the following: Preliminary amendment filed on 03/31/2004 for nonprovisional application filed on 03/31/2004; Verification of translation filed on 06/01/2004. Claims 1-10 are pending and have been examined.

#### ***Priority***

1. Applicant's claim for the benefit of a prior-filed application under 35 U.S.C. 119(e) or under 35 U.S.C. 120, 121, or 365(c) is acknowledged.

#### ***Claim Objections***

2. Claims 1, 2, 6, and 7 are objected to because of the following informalities:
  - As per claim 1, "and" should follow "... data processing system;" of step 2 in the claim. The phrase "enables a user to sequentially switch...a submenu function of an application software" should be "enables a user to sequentially switch to...a submenu function of an application software". The phrase "sequentially switching representing diagrams" should be "sequentially switching to representing diagrams".
  - As per claim 2, "the switching...sub-menu functions" should be "the switching to...sub-menu functions". There is lack of antecedent basis for the phrase "the information related to the application program".
  - As per claim 6, the phrase "in order to sequentially switch...various submenu functions of the application program" should be "in order to sequentially switch

to... various submenu functions of the application program". There is lack of antecedent basis for the phrase "the hotkey". There is lack of antecedent basis for the phrase "the input signals". The phrase "perform the switching...the submenu functions" should be "perform the switching to... the sub-menu functions".

- As per claim 7, the phrase "performing the switching... sub-menu functions" should be "perform the switching to... sub-menu functions". There is lack of antecedent basis for the phrase "the information".

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 2, and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gelsinger et al. (US 5,892,511) in view of Robelle ("Windows 3.x Tips for Hp Users",

<http://web.archive.org/web/19971007045348/http://www.robelle.com/smugbook/win3x.html>, October 7, 1997, pgs. 1-3).

As per independent claim 1, Gelsinger teaches **a method for switching software functions that enables a user to sequentially switch and open a sub-menu function of an application software through a hotkey set by choosing a**

**group of keys on an input unit as the hotkey set** (in column 1 lines 47-49 and 62-67, and column 2 lines 1-8 in view of figure 1), **the method comprising the steps of: 1) setting a combination of keys as the hotkey set on the input unit to switch and open various sub-menu functions** (in column 1 lines 47-49 and 62-67, and column 2 lines 1-8, the combination of keys must inherently be set as a hotkey set prior to its use as the hotkey set for performing the locating and activating taught by Gelsinger); **2) repeatedly pressing a first key of the combination of keys and then intermittently pressing a second key of the combination of keys to generate and send input signals to a data processing system** (column 2 lines 1-6; "repeatedly pressing" is interpreted as being equivalent to the "holding" disclosed by Gelsinger); **3) instructing the data processing system** (in column 1 lines 18-32) **to count to obtain a count value the number of times the user has pressed the combination of keys, and according to the count value sequentially switching representing diagrams on a display unit for the sub-menu functions of the application program accordingly** (in column 1 lines 25, 47-49 and 62-67, and column 2 lines 1-8; the switching to representing diagrams taught by Gelsinger is based on the number of key presses by the user, so therefore inherently requires keeping track of the number), but does not specifically teach (in column 1 lines 25, 47-49 and 62-67, and column 2 lines 1-8) **upon reaching the diagram of the sub-menu function that the user wishes to open, releasing the first key of the combination of keys to open the sub-menu function represented by the diagram**. However, the above limitation was well known in the art at the time the invention was made as shown by Robelle (on page 2 in the section

marked X). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Gelsinger with the method of Robelle for the purpose of indicating that a selection has been made. Moreover, both Gelsinger and Robelle refer to the same invention.

As per claim 2, the rejection of claim 1 is incorporated and the data processing system must inherently include **a central processing unit** (Gelsinger, in column 1 lines 18-22) **used to drive units and modules within the data processing system for performing the switching and opening of sub-menu functions of the application program, a storage unit** (Gelsinger, in column 1 lines 18-22) **used to store the information related to the application program, and a memory unit** (Gelsinger, in column 1 lines 18-22) **used to access, determine, and count the input signals generated by the user via the input unit** in order to perform the locating and activating taught by Gelsinger (in column 1 lines 47-49 and 62-67, and column 2 lines 1-8).

As per claim 4, the rejection of claim 1 is incorporated and **wherein the input unit is a keyboard** is inherent because the Alt, Shift and Tab keys (Gelsinger, in column 2 lines 1-7) are parts of a keyboard.

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gelsinger et al. (US 5,892,511) in view of Robelle ("Windows 3.x Tips for Hp Users", <http://web.archive.org/web/19971007045348/http://www.robelle.com/smugbook/win3x.ht>

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ml, October 7, 1997, pgs. 1-3) as applied to claims 1, 2, and 4 above, and further in view of Johnson (US 5,892,511).

As per claim 3, the rejection of claim 1 is incorporated and the memory unit must inherently include **an accessing module used to access each input signal generated when the user operates the input unit** in order for the switching to occur (Gelsinger, in column 2 lines 1-7); **a determining module used to determine whether the input signal matches the hotkey signal set previously** in order for the system to recognize that the hotkey was pressed (Gelsinger, in column 2 lines 1-7); **and a counter module used to count number of times the user actuates the hotkey via the input unit, in order to switch to and open the representing diagrams of the sub-menu functions of the application program on the display unit according to the count value** (Gelsinger, in column 1 lines 47-49 and 62-67, and column 2 lines 1-8; the switching to representing diagrams taught by Gelsinger is based on the number of key presses by the user, so therefore inherently requires keeping track of the number and a module used for that purpose), but Gelsinger and Robelle do not specifically teach hotkeys set **by the user**. However, it was well known in the art at the time the invention was made allow the user to set hotkeys for functions. For example, Johnson teaches user-specified hotkeys (in column 2 lines 32-36). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Gelsinger and Robelle with user-specified hotkeys to provide the user with more flexibility.

6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gelsinger et al. (US 5,892,511) in view of Robelle ("Windows 3.x Tips for Hp Users", <http://web.archive.org/web/19971007045348/http://www.robelle.com/smugbook/win3x.html>, October 7, 1997, pgs. 1-3) as applied to claims 1, 2, and 4 above, and further in view of Webopedia ("RAM", April 5, 2001, <http://web.archive.org/web/20010405125830/http://www.webopedia.com/TERM/R/RAM.html>, pgs. 1-3.).

As per claim 5, the combination of Gelsinger and Robelle teaches the method of claim 2 (see the rejection of claim 2), but do not specifically teach **wherein the memory unit is either one of a dynamic random access memory (DRAM) or static random access memory (SRAM)**. However, it was well known in the art at the time the invention was made to use of DRAM or SRAM as a memory unit, as shown by Webopedia (in paragraphs 1 and 2 on page 1). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Gelsinger and Robelle with DRAM or SRAM because of their widespread availability and common use.

7. Claims 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gelsinger et al. (US 5,892,511) in view of Johnson (US 5,892,511)

As per independent claim 6, Gelsinger teaches **a system for switching software functions used to enable a user to sequentially switch to and open sub-menu functions of an application program by a set of hotkeys** (in column 1 lines



47-49 and 62-67, and column 2 lines 1-8 in view of figure 1), **the system comprising: an input unit, wherein a set of keys is provided to the user to operate as the hotkeys for the application program, in order to sequentially switch or open various sub-menu functions of the application program** (in column 1 lines 47-49 and 62-67, and column 2 lines 1-8); **a display unit used to display the switching and opening of the representing diagrams for the sub-menu functions of the application program through the hotkey operated by the user** (in column 1 lines 25, 47-49 and 62-67, and column 2 lines 1-8); **and a data processing system used to receive and count number of times the input signals are generated upon the user actuating the hotkey for a particular program via the input unit, and to perform the switching and opening of the sub-menu functions of the application program** (in column 1 lines 47-49 and 62-67, and column 2 lines 1-8; the switching to representing diagrams taught by Gelsinger is based on the number of key presses by the user, so therefore inherently requires keeping track of the number), but Gelsinger does not specifically teach allowing **the user to set** hotkeys. However, it was well known in the art at the time the invention was made allow the user to set hotkeys for functions. For example, Johnson teaches user-specified hotkeys (in column 2 lines 32-36). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teaching of Gelsinger with user-specified hotkeys to provide the user with more flexibility.

As per claim 7, the rejection of claim 6 is incorporated and the data processing system must inherently include **a central processing unit** (Gelsinger, in column 1 lines

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18-22) **used to drive units and modules within the data processing system for performing the switching and opening of sub-menu functions of the application program, a storage unit** (Gelsinger, in column 1 lines 18-22) **used to store the information related to the application program, and a memory unit** (Gelsinger, in column 1 lines 18-22) **used to access, determine, and count the input signals generated by the user via the input unit** in order to perform the locating and activating taught by Gelsinger (in column 1 lines 47-49 and 62-67, and column 2 lines 1-8).

As per claim 8, the rejection of claim 7 is incorporated and the memory unit must inherently include **an accessing module used to access each input signal generated when the user operates the input unit** in order for the switching to occur (Gelsinger, in column 2 lines 1-7); **a determining module used to determine whether the input signal matches the hotkey signal set previously by the user** in order for the system to recognize that the hotkey was pressed (Gelsinger, in column 2 lines 1-7 and Johnson, in column 2 lines 32-36); **and a counter module used to count number of times the user actuates the hotkey via the input unit, in order to switch to and open the representing diagrams of the sub-menu functions of the application program on the display unit according to the count value** (Gelsinger, in column 1 lines 47-49 and 62-67, and column 2 lines 1-8; the switching to representing diagrams taught by Gelsinger is based on the number of key presses by the user, so therefore inherently requires keeping track of the number and a module used for that purpose).

As per claim 9, the rejection of claim 6 is incorporated and **wherein the input**

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**unit is a keyboard** is inherent because the Alt, Shift and Tab keys (Gelsinger, in column 2 lines 1-7) are parts of a keyboard.

8. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gelsinger et al. (US 5,892,511) in view of Johnson (US 5,892,511) as applied to claims 3 and 6-8 above, and further in view of Webopedia ("RAM", April 5, 2001, <http://web.archive.org/web/20010405125830/http://www.webopedia.com/TERM/R/RAM.html>, pgs. 1-3.).

As per claim 10, the combination of Gelsinger and Johnson teaches the method of claim 7 (see the rejection of claim 7), but does not specifically teach **wherein the memory unit is either one of a dynamic random access memory (DRAM) or static random access memory (SRAM)**. However, it was well known in the art at the time the invention was made to use of DRAM or SRAM as a memory unit, as shown by Webopedia (in paragraphs 1 and 2 on page 1). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teaching of Gelsinger and Johnson with DRAM or SRAM because of their widespread availability and common use.

### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 5157384 A  
US 5179655 A

Advanced user interface

Greanias; Evon C. et al.  
Noguchi; Yasuhiro et al.

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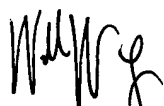
|                   |                                                                                                                                                                           |                               |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
|                   | Multiwindow control method and apparatus for work station having multiwindow function                                                                                     |                               |
| US 5721850 A      | Method and means for navigating user interfaces which support a plurality of executing applications                                                                       | Farry; Mohsen et al.          |
| US 5835088 A      | Method and apparatus for providing programmable window-to-window focus change within a data processing system using a graphical user interface                            | Jaaskelainen, Jr.; William    |
| US 5867729 A      | System for reconfiguring a keyboard configuration in response to an event status information related to a computer's location determined by using triangulation technique | Swonk; Glenn L.               |
| US 6215490 B1     | Task window navigation method and system                                                                                                                                  | Kaply; Michael Aaron          |
| KR 2002061205 A   | Method for giving service by hot key                                                                                                                                      | AHN, J                        |
| US 20030067446 A1 | Information processing apparatus and information processing method                                                                                                        | Ono, Kenichi et al.           |
| US 20030182388 A1 | Method and system for portable persistent clipboard function                                                                                                              | Alexander, Geoffrey D. et al. |
| US 20040001098 A1 | Information processing apparatus and input assisting method for use in the same                                                                                           | Numano, Fujihito              |
| US 7036088 B2     | Multi-modal method for application swapping                                                                                                                               | Tunney; William Patrick       |

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William Wong whose telephone number is 571-270-1399. The examiner can normally be reached on M-F 7:30-5:00 EST with every other Friday 7:30-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Hong can be reached on 571-272-4124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



William Wong  
Patent Examiner



STEPHEN HONG  
SUPERVISORY PATENT EXAMINER